



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT
Construction Programs Bureau

Albuquerque Office
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Phone (505) 222-9500 • Fax (505) 222-9510
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Richard Rose, Bureau Chief



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

July 18, 2008

Ms. Nasim Jahan
Water Infrastructure Project Engineer
U.S. EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

**Re: Ruidoso Wastewater Treatment Plant Upgrade
STAG XP-97630701-4, XP-96631701-0, and XP-9665710-1**

Dear Ms. Jahan:

Enclosed is a copy of the Environmental Information Document and the Supplemental EID for the above referenced project for your review. Questions pertaining to this document may be addressed to Mr. Sandy Edens at the above address or by calling (505) 222-9512.

Sincerely,

Erika Martinez
Program Assistant

cc: Sandy Edens, Project Manager
Project File

REGION 6 MODEL EA/FNSI TRANSMITTAL MEMO

Copy
7

MEMORANDUM

SUBJECT: Finding of No Significant Impact and Environmental Assessment for
Ruidoso/Ruidoso Downs Wastewater Treatment Facility

FROM: Sandy Edens, P.E., NMED-CPB Project Manager **for**
Jim Chiasson, P.E., NMED-CPB Technical Section Manager

TO: John Blevins, Director
Compliance Assurance and Enforcement Division (6EN)
Region 6, EPA

Attached for your signature are a Finding of No Significant Impact (FNSI) and the associated Environmental Assessment (EA) to document completion of the environmental review required by the National Environmental Policy Act for the above referenced project.

The funding recipient has determined that the administration of Ruidoso's wastewater effluent can come into compliance with the stringent requirements of the NPDES permit if a new facility utilizing state of the art membrane technology is constructed to handle current and future wastewater flow requirements. New solids handling equipment will also be installed.

The funding recipient was selected to receive special Congressional appropriations funding for the proposed project. The environmental review process indicated that no significant adverse environmental impacts should result from the proposed project. The project individually, cumulatively over time, or in conjunction with other actions will not have significant adverse impacts on the quality of the environment. Additionally, because of the nature of the new wastewater treatment facility the quality of the environment will be dramatically improved.

The attached FNSI will allow the funding recipient to proceed with the proposed construction. Your approval and signature is recommended.

Attachments

DATE:

ROUTING AND TRANSMITTAL SLIP

(PLEASE ROUTE OR HAND CARRY TO NEXT OFFICE)

TO:	INITIALS	DATE
1. Office Chief (6EN-XP)		
2. Division Director (6EN)		
3. Author (6EN-XP)		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

REMARKS:
AGENCY ACTION: EPA Funding of Ruidoso/Ruidoso Downs WWTP Construction Project
NEPA DECISION DOCUMENT: Finding of No Significant Impact with accompanying Environmental Assessment
APPLICANT: Ruidoso & Ruidoso Downs Joint Use Board, Lincoln County, New Mexico
PROJECT DESCRIPTION: Design and construct a wastewater treatment facility upgrades and modifications for use by Ruidoso and Ruidoso Downs, located in Ruidoso Downs, to comply with the NPDES permit.
MAJOR ENVIRONMENTAL IMPACTS PREDICTED: None

July 9, 2008

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS:

In accordance with the environmental review guidelines of the Council on Environmental Quality found at 40 Code of Federal Regulations (CFR) Part 1500 and with the use as guidance of the implementing environmental review procedures of the United States Environmental Protection Agency (EPA) found at 40 CFR Part 6 entitled "Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act", the EPA has performed an environmental review of the following proposed action.

Ruidoso and Ruidoso Downs Joint Use Board
Wastewater Treatment Facility
Located in Ruidoso Downs, Lincoln County, NM

EPA Project Numbers

Village of Ruidoso

XP-97630701-4	\$1,309,500
XP-96631701-0	\$ 867,200

City of Ruidoso Downs

XP-9665710-1	\$ 144,300
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Estimated Total EPA Share:	\$2,321,000
Estimated Local Share:	\$31,679,000

The Fiscal Year Appropriations Act for the EPA, FY 2002, FY 2003 and FY 2005 included special Congressional funding for water and wastewater construction projects. The funding recipient was selected to receive funding through these special appropriations for construction of a wastewater treatment facility to meet the NPDES permit requirements for discharge flow to 0.1 mg/L total phosphorus and 1.0 mg/L total nitrogen.

The current effluent flow from the existing wastewater treatment facility at Ruidoso and Ruidoso Downs, NM exceeds that required by the National Pollutant Discharge Elimination System permit. As part of the preliminary design process, the project engineers for the Joint Use Board (JUB) determined that the total maximum daily limit of 1.0 mg/L for total nitrogen (TN), as required in the May 26, 2006 draft of the National Pollutant Discharge Elimination System (NPDES) permit for the wastewater treatment plant, would be nearly impossible to achieve with the contemplated technology. The JUB subsequently appealed the state certification of the draft NPDES permit to the New Mexico Water Quality Commission. In May 2007, a Settlement Agreement was reached between the JUB and the New Mexico Environment Department (NMED) allowing effluent from the wastewater treatment plant to the environmentally sensitive Rio Ruidoso to have a TN limit of less than 9.0 mg/L daily maximum if influent temperature is less than 13°C, and less than 6.0 mg/L if influent temperature is 13°C or greater. The Settlement Agreement allowed these limits to be in force for an interim period from completion of construction of the new plant until the last day of the five-year NPDES permit. After that period,

the effluent must achieve a final effluent limit of 1.0 mg/L TN on a 30-day average, and a daily maximum TN of 1.5 mg/L.

The Settlement Agreement affords the JUB the opportunity to use the first 54 months of the five-year NPDES permit to investigate and report on treatment technologies that would further reduce the total nitrogen in the effluent. It is also possible that the effluent from the new treatment facility will improve the river's health to a point that the 1.0 mg/L TN limit will no longer be required. In such case, the JUB may petition for relief from compliance to the 1.0 mg/L TN limit as provided by the Settlement Agreement. The Settlement Agreement did not call for a new PER, but did stipulate that the final design must incorporate a best-available-technology BNR process. The process would be required to reduce TN and TP to the lowest possible concentrations. Construction of a new wastewater treatment plant to achieve compliance with the NPDES permit must be completed within 39 months of the date of issuance, which would make the current commissioning deadline October 2010. However, based on discussions with USEPA and NMED, the JUB anticipates the actual commissioning deadline to be December 2010.

The environmental review process, which is documented by the enclosed Environmental Assessment, indicates that no potential significant adverse environmental impacts will result from the proposed action. The project individually, cumulatively over time, or in conjunction with other actions will not have a significant adverse effect on the quality of the environment. On the basis of the environmental review determination that there are no predicted or cumulative significant adverse impacts associated with the project, I have determined that the project is not a major Federal action significantly affecting the quality of the human environment, and that preparation of an Environmental Impact Statement is not necessary. My preliminary decision is based upon the enclosed Environmental Assessment, a careful review of the Environmental Information Document prepared for the project, the results of the public participation process, and other supporting data which are on file in the office listed below and available for public review upon request. Therefore, I am issuing this preliminary Finding of No Significant Impact pertaining to the project.

Comments supporting or disagreeing with my preliminary decision may be submitted for consideration to the attention of the Office of Planning and Coordination (6EN-XP), Environmental Protection Agency, 1445 Ross Avenue, Dallas, Texas 75202-2733. After evaluating any comments received, the Agency will make a final decision. No administrative action will be taken on this preliminary decision for at least 30 calendar days after release of this Finding of No Significant Impact. The preliminary decision and finding will then become final after the 30-day comment period expires if no new significant information is provided to alter this finding.

Responsible Official,

John Blevins, Director
Compliance Assurance and Enforcement Division

cc: Mayor L. Ray Nunley, Chair, Joint Use Board
Ron Curry, Sec'y, NMED

Office of Regional Counsel
EPA Region 6-Dallas, TX

Enclosures; Environmental Assessment

ENVIRONMENTAL ASSESSMENT

Construction of Wastewater Treatment Facility Upgrades and Modifications for the Ruidoso and Ruidoso Downs Joint Use Board located in Lincoln county, New Mexico

EPA PROJECT NUMBER: XP-97630701-4 , XP-96631701-0 , and XP-9665710-1

BACKGROUND

The proposed project is located on the existing site of the current wastewater treatment facility in Ruidoso Downs, New Mexico. The area is shown on the map enclosed as Figure 1. The Fiscal Year 2002, 2003 and 2005 Appropriations Act for the EPA included special Congressional funding for water and wastewater treatment construction projects. The funding recipient was selected to receive funding through these special appropriations to construct wastewater treatment facility upgrades and modifications for Ruidoso and Ruidoso Downs, NM.

The current effluent flow from the existing wastewater treatment facility at Ruidoso and Ruidoso Downs, NM exceeds that required by the National Pollutant Discharge Elimination System permit. As part of the preliminary design process, the project engineers for the Joint Use Board (JUB) determined that the total maximum daily limit of 1.0 mg/L for total nitrogen (TN), as required in the May 26, 2006 draft of the National Pollutant Discharge Elimination System (NPDES) permit for the wastewater treatment plant, would be nearly impossible to achieve with the contemplated technology. The JUB subsequently appealed the state certification of the draft NPDES permit to the New Mexico Water Quality Commission. In May 2007, a Settlement Agreement was reached between the JUB and the New Mexico Environment Department (NMED) allowing effluent from the wastewater treatment plant to the environmentally sensitive Rio Ruidoso to have a TN limit of less than 9.0 mg/L daily maximum if influent temperature is less than 13°C, and less than 6.0 mg/L if influent temperature is 13°C or greater. The Settlement Agreement allowed these limits to be in force for an interim period from completion of construction of the new plant until the last day of the five-year NPDES permit. After that period, the effluent must achieve a final effluent limit of 1.0 mg/L TN on a 30-day average, and a daily maximum TN of 1.5 mg/L.

The Settlement Agreement affords the JUB the opportunity to use the first 54 months of the five-year NPDES permit to investigate and report on treatment technologies that would further reduce the total nitrogen in the effluent. It is also possible that the effluent from the new treatment facility will improve the river's health to a point that the 1.0 mg/L TN limit will no longer be required. In such case, the JUB may petition for relief from compliance to the 1.0 mg/L TN limit as provided by the Settlement Agreement. The Settlement Agreement did not call for a new PER, but did stipulate that the final design must incorporate a best-available-technology BNR process. The process would be required to reduce TN and TP to the lowest possible concentrations. Construction of a new wastewater treatment plant to achieve compliance

with the NPDES permit must be completed within 39 months of the date of issuance, which would make the current commissioning deadline October 2010. However, based on discussions with USEPA and NMED, the JUB anticipates the actual commissioning deadline to be December 2010.

The proposed project is considered to be a Federal action requiring compliance with the National Environmental Policy Act (NEPA). In accordance with the environmental review requirements of the Council on Environmental Quality found at 40 Code of Federal Regulations (CFR) Part 1500 and with the use as guidance of EPA's implementing regulations found at 40 CFR Part 6 entitled "Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act", as guidance the EPA is preparing this Environmental Assessment (EA) to assist in determining the environmental impacts of the proposed action, and in evaluating whether an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FNSI) will be prepared for the proposed project.

PURPOSE AND NEED

The Rio Ruidoso is classified as a coldwater fishery that provides wildlife habitat; however, the river has been listed by the State of New Mexico as an impaired waterway due to stream bottom sediments and plant nutrients. Therefore, the EPA, the New Mexico Environmental Department (NMED), and the New Mexico Water Quality Control Commission (WQCC) have recently instituted and applied to the river very stringent water quality standards. As such, the WWTP does not meet the current EPA requirements of a year-round phosphorous discharge limitation of 0.10 mg/L and the WQCC-approved Total Maximum Daily Loads (TMDL) for phosphorus and nitrogen of 2.72 lbs/day and 27.2 lbs/day, respectively. Further, the required Whole Effluent Toxicity (WET) tests currently are not being conducted on the WWTP's effluent. Moreover, the WWTP is overloaded and must be expanded to meet current and future needs. Based on population projections, the plant will need to support flows of 3.8 mgd, whereas current capacity is 0.77 mgd. Finally, the plant also experiences problems handling the volume of sludge and biosolids disposal with its current system of sludge digestion.

The issues facing the Joint Use Board and driving the need for the proposed project expansion and upgrade are discussed in detail in the following subsections.

The WWTP was built in 1978 to treat a flow capacity of 0.77 mgd, but a 1993 facilities plan rated the plant capacity at 1.9 mgd. Both estimated flow capacities are based only on the removal of suspended solids, organic carbon, and fecal coliform. The plant was never designed or rated for BNR. The original plant consisted of a flow equalization basin, two surface aerated oxidation ditches, two secondary clarifiers, a chlorination facility, a gravity thickener, an aerobic digester, and sludge drying beds. Influent flow was handled using two open channel screw pump stations.

A plant assessment was conducted as part of the PER to determine the condition of the existing treatment units and components and recommends improvements or repairs. The lower influent lift station and building, the influent and return activated sludge lift station and building, the aeration basins, the aeration basin brush rotor aerators, the secondary clarifiers, the sludge thickener, and the chlorine contact basins were assessed to be in poor condition. The rest of the

units and components were deemed in good condition, with the exception of the operation and maintenance building, which was rated in fair condition.

PROJECT DESCRIPTION

The Ruidoso / Ruidoso Downs Joint Use Board (JUB) has decided that Phase 1 construction will be broken into two sub-phases as described in the Supplemental Study of Advanced Treatment Options. Phase 1A work will consist of designing, bidding and constructing the following elements prior to the remainder of the project:

- Construct new ultraviolet disinfection facilities.
- Construct new sludge processing building and install the new gravity belt thickener and belt filter press that the JUB has pre-purchased.
- Construct new aerobic digester.
- Construct sludge processing building appurtenant facilities including filtrate treatment unit, filtrate drain lift station, temporary wash water system, and temporary waste activated sludge piping.

Phase 1B will consist of designing, bidding and constructing the following elements:

- New Influent Lift station and headworks including bar screens and grit removal and inlet flow measurement
- Modify and reuse the existing Equalization Basins
- New fine screens prior to the new MBR secondary treatment facility to include blowers, waste activated sludge pump and permeate pump facility and administration building with laboratory
- Effluent flow measurement

Implementing Phase 1A work first before Phase 1B has the following advantages:

- It allows the plant to maintain treatment throughout construction.
- It allows the JUB to use their pre-purchased sludge processing equipment up to two years sooner than if Phase 1 were implemented without segments.
- It allows fast-tracking of design and construction to insure the project can be completed on time.

ALTERNATIVES TO THE PROPOSED PROJECT

The funding recipient evaluated and considered a range of various alternatives to address the infrastructure needs of the area. Important factors influencing the evaluation of the processes and their recommended solutions included environmental acceptability, overall costs, availability of land for the intended uses, maximum reuse of existing facilities when applicable, operation and maintenance costs, system reliability, accommodation of future expansion needs, and public acceptance. Adherence to local, state and Federal regulations is of prime importance and concern to the funding recipient. The following is a discussion of the alternatives considered or evaluated during the development of the project.

A. No Action: The NEPA environmental review process requires consideration of the “no action” alternative. This alternative will allow the current public health concerns and environmental contamination to continue. The environmental consequences of taking “no action”, which would allow continued deterioration of the area, were compared with the benefits to be gained from the construction of the proposed project. Since taking “no action” is unresponsive to the current and future infrastructure needs of the funding recipient, and does not protect public health and environmental standards in the area, this alternative was **rejected** from further consideration in favor of implementing the proposed project.

B. Alternative 1 – Conventional Biological Nutrient Removal (BNR)

This alternative proposes a conventional BNR process with a pre-anoxic denitrification. The BNR system would remove nitrogen and phosphorus with an anaerobic selector following the headworks, and would recycle RAS. The system would direct waste stream flows to a pre-anoxic zone, which is mixed but not aerated, causing the biomass to use nitrate instead of oxygen for metabolism of BOD. The flows would continue to an aerobic zone, where BOD metabolism, ammonification, and nitrification would take place. Mixed liquor from the aerobic zone would be recycled to the anoxic zone. Clarifiers would follow the aerobic zone. This alternative was **rejected** from further consideration because the anticipated effluent quality would not meet the stringent requirements of the NPDES permit.

C. Alternative 2 – Simultaneous Nitrification and Denitrification (SNdN)

This alternative would use a SNdN process in which BOD metabolism, ammonification, nitrification, and denitrification occur in the same basin. The use of protein monitoring probes and variable-speed blowers would control concentrations of oxygen, making it possible for these processes to occur simultaneously. This process continues through a post-aeration zone on to the clarifiers. This alternative was **rejected** from further consideration because it would require significant additional equipment to obtain the stringent requirements of the NPDES permit.

D. Alternative 3 – Bardenpho Process with Membrane Bioreactors

This alternative would use a conventional BNR process supplemented with MBRs. After passing through anaerobic, anoxic, and aerobic zones, the waste stream would continue into

compartments containing MBRs, where pumps would draw permeate through the membranes. Recycle products would be taken from the compartments. The membrane filtration eliminates the need for clarifiers.

Due to the cost savings associated with this option, this is the **preferred** alternative chosen by the funding recipient to meet their wastewater collection and treatment needs.

ENVIRONMENTAL SETTING

The WWTP is located in Lincoln County, New Mexico, approximately five miles east of the US 70 and NM 37 intersection, 2,000 feet northeast of the City's eastern boundary, northeast of Agua Fria, and north of the Rio Ruidoso (See, Appendix A for project location maps). The six-acre project area, which includes both the current four-acre WWTP location and the proposed two-acre expansion area, is located within the northwest quadrant of Section 14, Township 11 South, Range 14 East, *Ruidoso Downs*, U.S. Geological Survey 7.5' quadrangle (1991). The project area's Universal Transverse Mercator (UTM) coordinates are Northing Range: 3691109 to 3691413, and Easting Range: 448383 to 448571.

The Service Area is in central Lincoln County, in southern New Mexico, and encompasses the Village, the City, and several surrounding unincorporated neighborhoods, which are adjacent communities. This area is located in the Sacramento Mountains and is surrounded by the Lincoln National Forest. Elevations range from 7,000 to 10,000 feet. The average maximum and minimum temperatures in Ruidoso are 65.7° F and 31.5° F, respectively. The average total precipitation is 21.5 inches per year, with an average snowfall of 38.8 inches. The area's pristine, forested environment offers numerous outdoor activities such as fishing, hiking, camping, and skiing, and, as a result, the area is a popular tourist destination. The Service Area's tourist economy includes a large number of part-time residents, which increases the population of the area substantially during peak tourist seasons.

City of Ruidoso Downs. The City is home to the Ruidoso Downs Race Track, the Hubbard Museum of the Horse, a super Wal-Mart, and residential housing along US 70. The City was originally settled near Hale Spring in the 1930s as a farming and sawmill community. The post office was established in 1947, and the horseracing track soon followed. The City was originally named Palo Verde, but the name was changed to Ruidoso Downs in 1958 to better associate it with the racetrack. Racing events were initially participated in and attended by locals, but now include nationally known races such as the All American Futurity.

The City of Ruidoso Downs has a population of 1,824 according to the 2000 Census. Of that total, 67.3% is White, 0.83% is African American, 3.6% is American Indian, 0.7% is Asian and 24.5% is classified "Other", assumedly Hispanic.

The Village of Ruidoso. The Ruidoso area was first inhabited by the Mescalero Apaches as they hunted and fished in the Sacramento Mountain area. Mountain men came to trap in the area, eventually followed by traders, merchants, and their families. The current incorporated Village was originally known as Dowlin's Mill after Captain Paul Dowlin who established a grist mill that still stands today. When the post office was established in the community in 1882, it was

named Rio Ruidoso (noisy river), for the river running through the center of town. By the end of the nineteenth century, the Village was a small settlement known for its legendary associations with Billy the Kid and other wild and independent individuals of the West. At the beginning of the twentieth century, the Village increasingly became known for its fishing, horseback, riding, and gambling. Shortly after World War II, Ruidoso Downs was constructed, further establishing Ruidoso as a summer resort destination. In 1962, Sierra Blanca Ski area (now Ski Apache) was opened, and the area became a year-round recreational destination with golf courses, a nearby casino, ski resorts, fishing, and other amenities.

The Village of Ruidoso has a population of 7,698 according to the 2000 Census. Of that total 87.5% is White, 0.3% is African American, 2.4% is American Indian, 0.3% is Asian, and 7.4% is "Other" assumedly Hispanic.

IMPACTS OF THE PROPOSED PROJECT

The proposed project was analyzed to identify potential short-term, long-term, and cumulative impacts on the environment. Factors that were considered include the probability of impact occurrence, magnitude of any occurrence, if any predicted occurrence is determined to be reversible/irreversible, direct/indirect or one-time/cumulative, the proposed action's conformity to legal mandates, and the social distribution of risks and benefits. The proposed project should not have a substantial negative impact upon current land uses or land values, nor should it have a substantial impact upon the values of surrounding land holdings. The proposed action is expected to have energy requirements typical of other construction projects of similar scope, size and duration, and will be conducted in accordance with the requirements of all local and state regulations.

The majority of the impacts associated with the proposed project will be short-term and temporary due to actual construction activities, and will cease immediately upon completion of construction work in any particular area. There are no significant adverse environmental impacts associated with the proposed action that cannot be reduced to acceptable levels. The only irretrievable resources committed to this project are labor, machinery wear, materials, funds spent, and energy consumed during construction. The potential short and long-term, direct, indirect and cumulative impacts resulting from the proposed action are identified and discussed below.

1. Biological Resources Including Threatened and Endangered Species: The proposed project was coordinated with the United States Fish and Wildlife Service and the New Mexico Department of Game and Fish concerning the protection of listed animal and plant species and their designated critical habitat. Since these protected resources are not known to occur in the project area, federally listed species or their habitats will not be adversely impacted by construction of the project.
2. Cultural/Historic Resources: The proposed project was coordinated with the State Historic Preservation Officer (SHPO) as required under Section 106 of the National Historic Preservation Act (NHPA) concerning the protection of sensitive resources with archaeological, historical, architectural, or cultural significance. Since these protected resources are not known to occur in

the project area, cultural or historic resources will not be adversely impacted by construction of the project. A good faith effort of tribal consultation indicates that no impacts will occur.

However, should materials, artifacts or properties of a potentially historic or archaeological nature be unearthed during construction, work will stop immediately in that general vicinity, and the funding recipient will immediately notify the SHPO of the discovery. Any such resources discovered will be evaluated in accordance with the requirements of 36 CFR Part 800. Appropriate mitigation measures will be developed and implemented, as needed, in consultation with the SHPO before construction is allowed to continue.

3. Floodplain: The proposed project was coordinated with the local Floodplain Administrator and the Federal Emergency Management Agency concerning the protection of the floodplain, and compliance with local floodplain management regulations. According to the County of Lincoln's floodplain manager, the proposed project boundaries have areas that fall within FEMA Flood Zone A. Siting of the WWTP facility upgrades and modifications will take place in the location of the existing treatment facility and will avoid encroaching on base floodplains within the project area. "Encroachment" means an action within the limits of the base floodplain. However, if it is determined that the preferred project alternative would encroach on or affect base floodplains in the area by changing base flood elevations, floodplain boundaries, or flow velocities, local, state, and federal water resources and floodplain management agencies will be consulted, and a location hydraulic study will be completed as required by federal regulations for encroachments on floodplains (EO 11988 and 23 CFR 650.11).

4. Wetlands: Consultation with the U.S. Army Corps of Engineers (USACE) has been initiated (Action No. 2005 00315; See, Appendix B for agency correspondence). Though a determination of permit requirement(s) will not be made until final design, if modifications to the outfall structure are deemed necessary by the proposed project, work on the existing outfall structure may be authorized by and performed under the conditions of Section 404 of the CWA, Nationwide Permits No. 12, *Utility Line Activities* or No. 7, *Outfall Structures and Maintenance*. A final determination will be made by the Joint Use Board in coordination with the USACE. A Section 404 permit application, along with the project environmental document, will be submitted to the USACE to initiate the permit process. The permit process will be completed prior to project construction. Because Section 404 of the CWA applies to this project, a CWA Section 401 Water Quality Certification will also be required. This certification is issued by NMED. This certification process will also be completed prior to construction.

5. Surface Water Resources: The proposed project was coordinated with both the National Park Service and the New Mexico Water Quality Control Commission concerning the protection of surface water resources. Effluent will not be discharged into waters which have been designated as a wild and scenic river. Since these protected resources are not known to occur in the project area, surface water resources will not be adversely impacted by construction of the project. The proposed WWTP upgrade and expansion will meet all required water quality standards, and, therefore, will have a positive impact on the Rio Ruidoso.

Because construction will disturb more than one acre of land, a SWPPP will be prepared to prevent erosion both during and after construction. The SWPPP will ensure that appropriate best management practices (BMPs) are incorporated into the design and construction plan.

6. Ground Water Resources: The proposed project was coordinated with the New Mexico Environment Department Ground Water Quality Bureau concerning the protection of ground water resources for compliance with the New Mexico Environment Department (NMED) groundwater discharge and effluent reuse requirements. Since the project is not located over ground water resources that have been designated as a sole source aquifer, ground water resources will not be adversely impacted by construction of the project.

7. Prime and Unique Farmlands: The proposed project was coordinated with the Natural Resources Conservation Service concerning the protection of prime and/or unique farmlands. Since these protected resources are not known to occur in the project area, prime and/or unique farmlands will not be adversely impacted by construction of the project.

8. Air Quality: The project was coordinated with the NMED Air Quality Bureau concerning the protection of air quality. The proposed project is located in an attainment area which is in compliance with the National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants. All vehicles and equipment used in the construction of this project must comply with the regulations concerning control of air pollution from mobile sources. Since the project will not violate NAAQS, air quality will not be adversely impacted by construction of the project.

9. Environmental Justice: The proposed project was reviewed for compliance with Executive Order 12898 entitled "Federal Actions to Address Environmental Justice (EJ) in Economically Stressed Populations. Potential environmental impacts to economically stressed communities were evaluated using Geographical Information System maps, census demographic data, and a mathematical formula to rank the project for EJ impacts. The project will serve all populations equally and will be constructed in a manner to ensure that no persons or populations will be discriminated against or denied the benefits of the project. There will be no adverse impacts that are considered disproportionate to any particular population(s). The results of the EJ analysis are shown in the attached EJ Analysis. The analysis results in a ranking scale of one to one hundred that indicates the potential for economically stressed. A ranking below thirteen indicates the low possibility of economically stressed while a ranking above fifty indicates a high probability of economically stressed.

10. Coastal and Barrier Resources: Since the entire state of New Mexico is inland and not adjacent to any coastal location, construction of the proposed project should not have significant adverse impacts to coastal and barrier resources.

11. Cumulative Impacts: Potential cumulative impacts would be those impacts to the local environment that would result from the proposed project in combination with other ongoing actions, and those reasonably foreseeable future actions. No other major construction activity is being conducted presently or planned for the immediate future. The proposed project will not individually nor cumulatively over time have a negative impact on the quality of the human or natural environment. To the contrary, improved infrastructure will have a positive environmental effect by enhancing public health and protecting the surface and ground water from continued contamination.

DOCUMENTATION, COORDINATION, AND PUBLIC PARTICIPATION

Public hearings for the proposed project were held on May 3, 2006 and again on February 27, 2008 at 6:15 PM at the Hubbard Museum of the American West in Ruidoso Downs, NM. The purpose of the meetings was to inform the public of the proposed project, to identify any issues of concern, and to request public participation in the development of the project. The project is supported by the community, no adverse public comments or concerns were received.

During the process of conducting the environmental review and preparing this EA for the project, coordination has been conducted with all required resource protection agencies and offices to solicit and incorporate their initial review and comments, if any. Copies of this EA will be provided to those agencies and offices for their final review and comments, if any. Other interested parties may request a copy of the EA in writing from the EPA, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Dallas, Texas 75202-2733.

References

1. Environmental Information Document, Taschek, July 2006 and supplemental by Taschek, Jan., 2008
2. Engineering Report, Archuleta, Nov 2005 and Supplemental by Archuleta 10/26/07

RECOMMENDATION

Based upon completion of this Environmental Assessment, and a detailed review of the supporting information contained in the Environmental Information Document, the Public Hearing Responsiveness Summary, Table 1, which were prepared for the project, and other pertinent technical, engineering and administrative documentation, the proposed project is considered to be cost-effective and environmentally sound. Therefore, it is recommended that a Finding of No Significant Impact be issued for this project.

**The Ruidoso Regional Wastewater Treatment Joint Use Board
announces a**

**PUBLIC HEARING AND
AVAILABILITY OF THE**

**DRAFT SUPPLEMENTAL ENVIRONMENTAL INFORMATION DOCUMENT (SUPPLEMENTAL EID)
AND SUPPLEMENTAL STUDY OF ADVANCED TREATMENT OPTIONS (SUPPLEMENTAL STUDY)**

For the

RUIDOSO WASTEWATER TREATMENT PLANT UPGRADE

Project #s: STAG XP-97630701-4; XP-96631701-0; XP-9665710-1

Wednesday, February 27, 2008

6:00 PM- 8:00 PM

Hubbard Museum of the American West

841 West Highway 70

Ruidoso Downs, New Mexico 88346

Schedule

- 6:00 – 6:30 – Presentation of Technical Aspects of project by Del Archuleta, Molzen-Corbin & Associates
- 6:30 – 7:00 – Presentation of the Environmental Impacts and Mitigations by John Taschek – Taschek Environmental Consulting
- 7:00 – 8:00 – Questions and Comments from the Public. (Written questions and comments may be submitted to John Taschek during the 30-day period ending on March 28, 2008.)

PURPOSE OF HEARING:

The Ruidoso Regional Wastewater Treatment Joint Use Board (JUB) is proposing upgrading and expanding its regional Ruidoso Wastewater Treatment Plant (WWTP). The Village of Ruidoso (Village) has received \$2,176,800 (\$1,309,500 from XP-97630701-4 and \$867,300 from XP-96631701-0) and the City of Ruidoso Downs (City) has received \$144,300 (XP-9665710-1) from the USEPA under the State and Tribal Assistance Grant (STAG) program to fund this project. The City is also applying for USDA Rural Development Funds to fund this project. The Village and the City are each providing additional funding. At the time of the writing of the Supplemental Study, the estimated cost for the project is approximately \$41,000,000.

The public is invited to attend a public hearing for the project. The hearing will include:

- **Review of project information** such as scope, purpose, and need;
- Findings of the Supplemental Study, including the project alternatives that were proposed and the alternative that was selected by the JUB;
- Environmental impacts from the proposed improvements; and
- Opportunity for **public input and comments** on the proposed improvements and issues of local importance.

AVAILABILITY OF THE DRAFT SUPPLEMENTAL EID AND THE SUPPLEMENTAL STUDY:

The draft Supplemental EID and the Supplemental Study will be available for review from January 25, 2008 through March 28, 2008, at the following locations:

- Village of Ruidoso, Office of the Village Manager, 313 Cree Meadows Drive, Ruidoso, NM, 505.258.4343
- City of Ruidoso Downs, Office of the City Administrator, 122 Downs Drive, Ruidoso Downs, NM, 505.378.4422
- Molzen-Corbin & Associates, 2701 Miles Road, S.E., Albuquerque, NM, 505.242.5700
- Taschek Environmental Consulting, 8901 Adams, N.E., Suite D, Albuquerque, NM, 505.821.4700

If you are interested in the project, but are unable to attend the hearing, you can contact John Taschek, Taschek Environmental Consulting, 505.821.4700, or Cindy Mohler, Molzen-Corbin & Associates, 505.242.5700. Comments will be accepted at the hearing or can be mailed to Mr. Taschek at 8901 Adams, N.E., Suite D, Albuquerque, NM 87113, or e-mailed to jtaschek@taschek.net. Requests for Americans with Disabilities Act-related accommodations for this meeting should also be directed to Mr. Taschek.

SUPPLEMENTAL ENVIRONMENTAL INFORMATION DOCUMENT
RUIDOSO JOINT USE BOARD WASTEWATER TREATMENT PLANT

The Village of Ruidoso and City of Ruidoso Downs Joint Use Board is proposing to upgrade and expand its regional wastewater treatment plant. Funding sources for the project include the U. S. Environmental Protection Agency (USEPA), the Village of Ruidoso, and the City of Ruidoso Downs. The sources of USEPA funds include three STAG grants: XP-97630701-4 for \$1,309,500 to the Village of Ruidoso, XP-96631701-0 for \$867,300 to the Village of Ruidoso, and XP-9665710-1 for \$144,300 to the City of Ruidoso Downs. The City of Ruidoso Downs is also applying for U.S. Department of Agriculture (USDA) Rural Development Funds to fund this project.

Background

The following supplemental environmental information document (EID) was prepared to address changes in the proposed design of the Village of Ruidoso and City of Ruidoso Downs Joint Use Board's (JUB's) wastewater treatment plant. Previously, in 2006, the JUB had commissioned a preliminary engineering report (PER) and an EID to investigate treatment measures to achieve the required 0.1 mg/L total phosphorus (TP) limit (Molzen-Corbin and Associates, 2006). The May 2006 PER recommended that a new treatment plant be constructed using either a conventional biological nutrient removal (BNR) process, or another BNR technology known as simultaneous nitrification and denitrification. A public hearing was held on May 3, 2006, at Ruidoso Village Hall, to solicit public input on the PER, EID, and project funding strategies, and a public responsiveness summary and final EID were subsequently issued in July 2006.

As part of the PER design process, the project engineers for the JUB (Engineer) determined that the total maximum daily limit of 1.0 mg/L for total nitrogen (TN), as required in the May 26, 2006 draft of the National Pollutant Discharge Elimination System (NPDES) permit for the wastewater treatment plant, would be nearly impossible to achieve with the contemplated technology. The JUB subsequently appealed the state certification of the draft NPDES permit to the New Mexico Water Quality Commission. In May 2007, a Settlement Agreement was reached between the JUB and the New Mexico Environment Department allowing effluent from the wastewater treatment plant to the environmentally sensitive Rio Ruidoso to have a TN limit of

less than 9.0 mg/L daily maximum if influent temperature is less than 13°C, and less than 6.0 mg/L if influent temperature is 13°C or greater. The Settlement Agreement allowed these limits to be in force for an interim period from completion of construction of the new plant until the last day of the five-year NPDES permit. After that period, the effluent must achieve a final effluent limit of 1.0 mg/L TN on a 30-day average, and a daily maximum TN of 1.5 mg/L.

The Settlement Agreement affords the JUB the opportunity to use the first 54 months of the five-year NPDES permit to investigate and report on treatment technologies that would further reduce the total nitrogen in the effluent. It is also possible that the effluent from the new treatment facility will improve the river's health to a point that the 1.0 mg/L TN limit will no longer be required. In such case, the JUB may petition for relief from compliance to the 1.0 mg/L TN limit as provided by the Settlement Agreement. The Settlement Agreement did not call for a new PER, but did stipulate that the final design must incorporate a best-available-technology BNR process. The process would be required to reduce TN and TP to the lowest possible concentrations. Construction of a new wastewater treatment plant to achieve compliance with the NPDES permit must be completed within 39 months of the date of issuance, which would make the current commissioning deadline October 2010. However, based on discussions with USEPA and NMED, the JUB anticipates the actual commissioning deadline to be December 2010.

To achieve this end, the JUB commissioned a Supplemental Study of Advanced Treatment Options (Molzen-Corbin and Associates, 2007) to support the original PER. The purpose of this study was to take an in-depth look at what systems would be needed in light of the new stringent TN limit of the NPDES permit. The NPDES permit (NM0029165, issued July 18, 2007 and effective September 1, 2007) also maintained a total phosphorous (TP) limit of 0.1 mg/L on a 30-day average, which requires that the effluent from the wastewater treatment plant be treated with a tertiary chemical process, and that the plant's sludge treatment capabilities be upgraded and expanded.

The following supplemental EID evaluates any potential environment impacts associated with the recommendations of the Supplemental Study of Advanced Treatment Options and the alternative selected by the JUB.

Study Methodology and Findings

The process capacity in the original PER was reviewed in light of projected population growth since development of the PER. Using the rate of annual population growth used in the PER (2.82%), it was determined that the plant should have an initial capacity of 2.7 million gallons per day (mgd) to handle peak month average day flows, and should be expanded in a second phase of construction to 3.6 mgd. An historic problem with infiltration into the sewer lines is currently being studied. It is hoped that correction of the problem will enable the JUB to avoid construction of all or part of the Phase 2 expansion.

A thorough review was made of all existing influent flow volume and quality data. Suitable data was found to be sorely lacking. Operators only have the ability to measure effluent flows. Although some inference can be made about influent flow from effluent data, the data often is misleading. By the time the flow has passed through the treatment process, invaluable data about peak influent flows already has been lost. Additionally, the effluent data was captured to disk by an effluent flow meter, but the plant had no means of accessing the data from the disk.

To develop new data about the wastewater parameters most critical to this study, the Engineer purchased a software application that enabled effluent data from May 8, 2000 to July 17, 2007 to be retrieved from the disk. A review of the data, however, showed gaps where data was not collected due to equipment failure.

In addition, the Engineer collected new data to be able to gauge both peak influent volumes as well as important biological and chemical characteristics of the influent stream. For two days, the Engineer collected hourly influent grab samples and took influent flow readings. The samples were analyzed to determine how the composition of the influent changes throughout the day. The flow measures offered an understanding of when and how much the influent peaks during the course of the day. However, since the influent data gathering only occurred over a two-day period, additional testing is recommended during the design phase of the project.

In order to maximize the design alternatives capable of the high nutrient removal required in this project, state-of-the-art computer modeling was necessary. The Engineer contracted University of Washington professor H. David Stensel, Ph.D., to conduct the modeling of existing and expected future wastewater conditions.

The service area for the wastewater treatment plant presents multiple challenges to biological wastewater treatment. The area is a tourist attraction for its opportunities in skiing, horseracing, gaming, and exploration of scenic natural resources. As such, wastewater influent fluctuates greatly depending on activities that draw in significant numbers of tourists. But after large tourist events, the influent levels drop significantly, which poses challenges to the maintenance of a steady-state condition at the wastewater treatment plant as the microorganisms in the treatment processes require constant flow and nutrient source in order to thrive. The potential for extreme cold temperatures also presents a tremendous challenge to operators for much the same reason. The beneficial microorganisms prefer warm water conditions, and extreme periods of cold temperature upset the ability to maintain robust colonies. Therefore, the treatment models simulated the various conditions that would stress any biological treatment process to determine which technology systems would be best suited to the conditions found in the service area.

Before commencing the modeling process, the Engineer determined that the need to bring total nitrogen to the lowest possible level would require that either of the two liquid processes listed as the best alternatives in the original PER be followed by a second anoxic/aerobic process that would serve to further reduce the amount of total nitrogen in the effluent. The addition of this process resulted in treatment known as the Bardenpho process, which has been successfully employed to reduce nitrogen levels in effluent since 1980. Furthermore, the Engineer determined that the conventional sand filters used in the Bardenpho process could be replaced with membranes to provide the highest quality of effluent and also save space.

Alternative Process Descriptions

The result of the computer modeling was the identification of three alternatives that would provide the best treatment capability with the anticipated flow, temperature, and influent quality:

- Alternative 1 – Bardenpho/clarifier/tertiary membrane process
- Alternative 2 – Bardenpho/MBR process with tertiary membrane treatment
- Alternative 3 – Bardenpho/MBR process without tertiary membrane treatment

The first alternative, the Bardenpho/clarifier/tertiary membrane process utilizes nitrification, nitrogen removal by denitrification, enhanced biological phosphorus removal, phosphorus removal by chemical precipitation, and tertiary effluent solids removal by membrane filtration. Methanol is added to provide carbon, which assists the biological process in removing nitrogen. Alum is added to the process to remove phosphorus that was not previously removed by biological means. The process also uses two 75-foot-diameter clarifiers to separate solids from the mixed liquor. Additional alum flocculation and tertiary membrane filters further polish the effluent to bring total phosphorus to below 0.1 mg/L.

Alternative 2 was the Bardenpho/MBR process. Two membrane bioreactor-based options were considered, M-1 and M-2. These differ in the management of recycle streams, especially the oxygenated recycle flow from the membrane bioreactor aerobic zone. M1 contains two recycle streams. M2 uses three recycle streams but does not contain a deoxygenation basin and has smaller anaerobic and aerobic basins. The MBRs incorporated in this alternative basically serve to replace the clarifiers considered in the first alternative.

Alternative 3 was developed when it was determined that treatment levels, roughly analogous to those of Alternative 1, could be achieved by the Bardenpho/MBR process without the tertiary membrane filtration. However, it was also noted that removal of the tertiary membrane filtration in Alternative 3 poses some possible reliability risk.

The three alternatives are illustrated and described in more detail in the Supplemental Study of Advanced Treatment Options (Molzen-Corbin and Associates, 2007).

Evaluation of Alternatives

After reviewing information from the computer simulations, the three alternatives were evaluated against parameters deemed most critical to a new wastewater treatment facility. A key benchmark for any alternative was how well it would treat wastewater in Ruidoso.

Alternative 1 was found to have the greatest level of nitrogen removal efficacy. The tertiary processes of Alternatives 1 and 2 can effectively remove phosphorus, but Alternative 3 poses a risk of not being able to consistently meet the phosphorus limit under extreme treatment conditions since it lacks the tertiary membrane incorporated in Alternatives 1 and 2. However, the risk can be managed by increasing the alum dosage to the secondary treatment basins in Alternative 3 during high loading conditions to convert the required amount of dissolved phosphorus to particulates and thus be captured by the membranes in the bioreactor.

Alternatives 1 and 2 contain tertiary treatment basins and membranes, which afford the ability to expand the tertiary process for additional nitrogen removal capability, if needed in the future, which is an advantage not shared by Alternative 3. Alternative 3, however, may be viewed as more cost effective because it only contains capabilities that are currently needed, and does not include additional capabilities that may never be needed. Alternative 3 can be configured on the site now to add future tertiary treatment units in the future if needed. All three alternatives showed an equal ability to be expanded to achieve Phase 2 flow rates.

Alternative 1 exhibited the least favorable ability to fit onto the existing site or ease of constructability. Alternative 1, however, was judged to be the most favorable in terms of ease of operation and maintenance as well as system reliability.

The conceptual capital cost estimates for each alternative are summarized in Table 1, which includes a per-gallon costs of treatment. Capital costs were predictably higher for Alternatives 1 and 2. Alternative 1 provides treatment at slightly higher per-gallon cost. Alternative 3, with its lower capital costs in both phases of construction, provides the lowest costs per treated gallon.

The conceptual operation and maintenance (O&M) costs are presented in Table 2. Alternative 3 again is the favored alternative in both phases of the project.

TABLE 1
CONCEPTUAL CAPITAL COSTS (INCLUDING TAX)

	Phase 1	Phase 2 Adder	Total
Alternative 1 – Bardenpho/Clarifier/ Tertiary Membrane	\$38,919,000 (\$14.41/gal capacity)	\$2,383,000	\$41,302,000 (\$11.47/gal capacity)
Alternative 2 – Bardenpho/MBR with Tertiary	\$43,131,000 (\$15.97/gal capacity)	\$4,626,000	\$47,757,000 (\$13.27/gal capacity)
Alternative 3 – Bardenpho/MBR without Tertiary	\$36,010,000 (\$13.34/gal capacity)	\$3,794,000	\$39,804,000 (\$11.06/gal capacity)

TABLE 2
CONCEPTUAL OPERATION AND MAINTENANCE COSTS
(ELECTRICITY, CHEMICALS, AND MEMBRANE REPLACEMENT)
ANNUAL COSTS

	Phase 1 First Year of Operation At Initial Load ¹	Phase 1 At Design Capacity	Phase 2 At Design Capacity
Alternative 1 – Bardenpho/Clarifier/ Tertiary Membrane	\$604,000	\$798,000	\$1,100,000
Alternative 2 – Bardenpho/MBR with Tertiary	\$617,000	\$907,000	\$1,246,000
Alternative 3 – Bardenpho/MBR without Tertiary	\$527,000	\$675,000	\$976,000

¹For reference, current annual operation and maintenance costs are approximately \$234,000.

Evaluation Matrix

To provide a quantifiable judging protocol, the Engineer created an evaluation matrix with scores for each of the critical benchmarks (see Table 3).

Alternative 3 is clearly the most cost effective alternative in both capital and O&M costs, but compares less favorably in its reliability to remove phosphorus and its expandability to remove nitrogen in the future.

All of the alternatives are capable of treating the effluent to the interim NPDES permit requirements. The resultant evaluation matrix, in Table 3, indicated that Alternative 1 presents the most favorable mix of attributes. Although it presents the greatest challenge to construct on the existing site, Alternative 1 would be expected to produce an effluent with the lowest levels of nitrogen and phosphorus. Although not the least costly option, this alternative would be reliable and easy to operate and maintain.

TABLE 3
EVALUATION MATRIX

	ALTERNATIVE		
	1	2	3
Regulatory Compliance with Respect to N Removal	1	2	2
Regulatory Compliance with Respect to P Removal	1	1	2
Ability to Incorporate Additional Tertiary Processes for Further Nitrogen Removal	1	1	3
Expandability	1	1	1
Site Efficiency and Constructability	3	1	1
Operation and Maintenance	1	2	2
Reliability	1	2	3
Cost Considerations	2	3	1
TOTAL	11	13	15

1 = most favorable 2 = average 3 = least favorable

Selected Alternative

Although Alternative 1 was recommended by the Engineer as the preferred alternative in the Supplemental Study of Advanced Treatment Options, the JUB elected to identify Alternative 3 — Bardenpho/Membrane Process without Tertiary Treatment as the Selected Alternative for the following reasons.

1. Cost

Alternative 3 is clearly the least expensive of the three options, as shown in the following Table 4.

TABLE 4
COMPARATIVE COSTS

	Phase 1 Capital Cost	Combined Phase 1 and Phase 2 Capital Cost	Year 1 Annual Cost
Alternative 1	\$38,919,000	\$41,302,000	\$604,000
Alternative 2	\$43,131,000	\$47,757,000	\$617,000
Alternative 3	\$36,010,000	\$39,804,000	\$527,000
Alt. 3 Savings vs. Alt 1	\$2,909,000	\$1,498,000	\$77,000
Alt. 3 Savings vs. Alt 2	\$7,121,000	\$7,953,000	\$90,000

2. Land Requirement

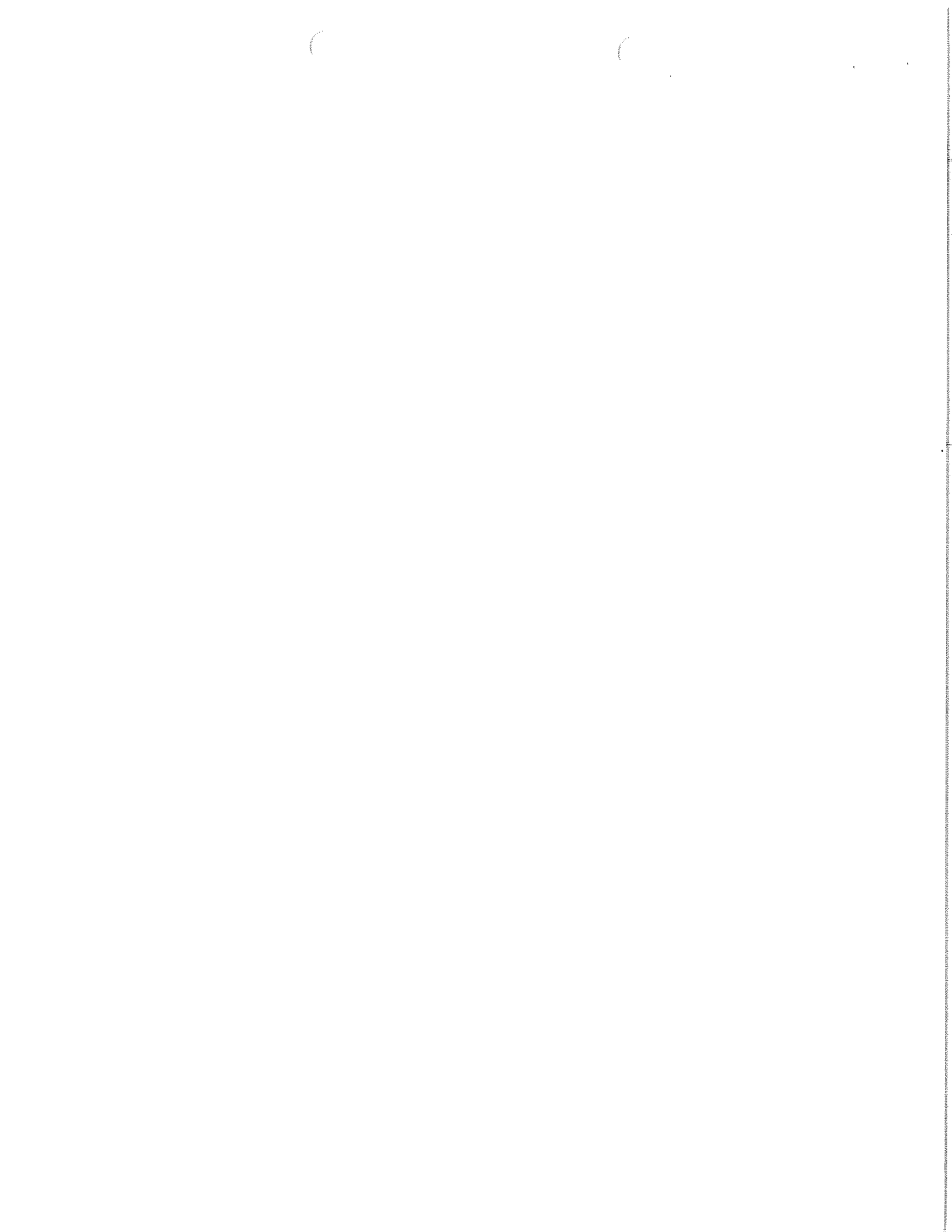
Alternative 3 requires less land than either Alternative 1 or Alternative 2 because it does not require secondary clarifiers or tertiary filters. Alternative 3 would require the same site configuration as Alternative 2, but with the deletion of the tertiary filters. This deletion of approximately one half acre of development would allow space for addition of future tertiary and reuse processes not yet defined.

3. Flexibility in Providing Optimum Tertiary Treatment Option

Alternative 3 allows the owner to construct and operate the secondary treatment membrane bioreactor prior to designing a tertiary treatment process. After assessing the performance of the new treatment process and assessing its impact on the health of the Rio Ruidoso, the JUB will be in a much better position to determine whether or not a tertiary treatment process is needed at all, or if a process modification to the existing chemical feed system is all that will be required.

4. Flexibility in Accommodating Future Discharge Options

The smaller land requirement of Alternative 3 gives the Owner the option of adding pumping facilities on the existing plant site to reuse the effluent for irrigation or other purposes upstream of the plant.



Implementation

Per the Settlement Agreement, the JUB must commission the new wastewater treatment facility within 39 months of issuance of the interim NPDES permit. (As noted above, this deadline is currently October 2010, but is anticipated to be changed to December 2010.) The construction contract must be awarded no later than April 2009 in order to have an 18-month construction period. Design of the plant will require 12 months regardless of which alternative is selected, and another three to four months for regulatory approvals, advertising, bidding, and awarding of the construction contract.

The JUB has decided that Phase 1 construction will be broken into two sub-phases as described in the Supplemental Study of Advanced Treatment Options. Phase 1A work will consist of designing, bidding and constructing the following elements prior to the remainder of the project:

- Construct new ultraviolet disinfection facilities.
- Construct new sludge processing building and install the new gravity belt thickener and belt filter press that the JUB has pre-purchased.
- Construct new aerobic digester.
- Construct sludge processing building appurtenant facilities including filtrate treatment unit, filtrate drain lift station, temporary washwater system, and temporary waste activated sludge piping.

Implementing Phase 1A work first before Phase 1B has the following advantages:

1. It allows the plant to maintain treatment throughout construction.
2. It allows the JUB to use their pre-purchased sludge processing equipment up to two years sooner than if Phase 1 were implemented without segments.
3. It allows fast-tracking of design and construction to insure the project can be completed on time.

The estimated Phase 1A construction cost, including New Mexico Gross Receipts Tax, is approximately \$7 million.

Changes in Environmental Conditions and Impacts

The technology utilized in the selected Alternative 3 – Bardenpho/MBR process without tertiary membrane treatment -- will occupy the same site as the current JUB wastewater treatment plant, and will not require any additional property or land disturbance. Consequently, there is little or no change to the findings of the original EID from 2006. The text of the EID should reflect the current design, with the following supplemental language.

Page 1, Paragraph 1: The cost of the current design is approximately \$39,800,000.

Page 2, Paragraph 1: The NPDES permit includes stringent phosphorus and nitrogen limitations.

Page 2, Paragraph 2: The JUB commissioned a Supplemental Study of Advanced Treatment Options (Molzen-Corbin and Associates, 2007) to support the original PER.

Page 3, Paragraph 1: No new land will be needed for expansion of the plant.

Page 3, Paragraphs 1 and 2: The process capacity information in the original PER should be updated to indicate that the plant will have an initial capacity of 2.7 mgd to handle peak month average day flows and an expanded second phase capacity of 3.6 mgd.

Page 3, Paragraph 4: The recommended [replace with “selected”?]alternative would remove TN to the levels specified in the Settlement Agreement, as well as TP.

Page 3, Paragraph 5: The selected alternative is the Bardenpho/MBR process without tertiary membrane treatment, as described in detail in the Supplemental Study of Advanced Treatment Options.

Page 8, Table 2: Discharge limitations for TN are less than 9.0 mg/L daily maximum if influent temperature is less than 13°C, less than 6.0 mg/L if influent temperature is 13°C or greater in the interim period, and 1.0 mg/L TN on a 30-day average or a daily maximum TN of 1.5 mg/L in the long term period.

Pages 10-13: Summary of Alternatives: The three Bardenpho related alternatives investigated in the Supplemental Study of Advanced Treatment Alternatives should be described.

Pages 13-14: SelectedProject Alternatives: The Bardenpho/MBR process without tertiary membrane treatment should be described.

Page 21, Paragraph 5: Because the current preferred alternative does not require additional property, there will be no need to remove piñon or juniper trees.

Page 22, Paragraph 3: Because no trees will be removed, there will be no potential impacts to wildlife habitat or nesting birds.

Page 28, Paragraph 4: Mitigation measures associated with the removal of trees are not necessary.

Page 29, Agencies and Individuals Consulted: Additional consultation letters will be sent to stakeholders and the findings incorporated into the final supplemental EID.

Page 34, Public Involvement: An additional public hearing will be held in February 2008 to solicit input, and the results will be considered in the final supplemental EID.

